

### **REMARKS**

Claims 1, 3-6, 12-16, 22 and 24-27, as amended, and new claims 54-61 are pending in the present application for the Examiner's review and consideration.

Independent claims 1 has been amended to recite that the patch is sterile and that the polyvinylpyrrolidone-based hydrogel comprises one or more local anesthetics or a pharmaceutically acceptable salt thereof, a poly(ethylene glycol)("PEG"), and an acrylic polymer; and independent claims 12 and 22 have been similarly amended to recite the same specific features. Claims 2 and 23 have been canceled without prejudice. Support for the amendments can be found in the original claims and in the specification, *e.g.*, at page 26, line 24 to page 27, line 14.

New claims 54-56 have been added to recite specific amounts of polyvinylpyrrolidone or local anesthetic in the hydrogel, *see, e.g.*, specification at page 20, line 27 to page 21, line 9; and new claims 57 and 58 have been added to recite specific PEG and acrylic polymer, respectively, *see, e.g.*, specification at page 26, lines 30-31 and page 27, lines 7-9; and new claims 59-61 have been added to recite specifically that the patch is applied to a non-intact skin, a burn or wound, and a surgically closed wound, respectively, of the mammal, *see, e.g.*, specification at page 4, lines 18-26.

Applicant respectfully requests entry of the amendments into the record of the present application, as no new matter has been introduced. Applicant also reserves the right to file divisional and other continuing applications directed to subject matter disclosed but not claimed in the present application.

#### **Claim Rejections Under 35 U.S.C. § 102 Are Moot**

Claims 1, 3-6, 22 and 24-27 were rejected by the Examiner under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,455,066 to Fischer et al. ("Fischer") for the reasons set forth on pages 5 and 6 of the Office Action. Claims 1, 3-6, and 12-16 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,469,227 to Cooke et al. ("Cooke") for the reasons set forth on page 6 of the Office Action. Claims 1, 3-6, 22 and 24-27 were rejected by under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Application No. 2003/0027833 to Cleary et al. ("Cleary") for the reasons set forth on pages 6 and 7 of the Office Action.

Applicant respectfully disagrees with both the Examiner's characterization of the references and the reasons for the rejections. However, in an effort to expedite the prosecution of the present application, Applicant has amended independent claims 1, 12 and 22 to include the feature that the patch is sterile. Therefore, the rejections under 35 U.S.C. § 102(e) have become moot and inapplicable to the amended claims.

Claim Rejections Under 35 U.S.C. § 103 Should Be Withdrawn

Claims 2, 12-16 and 23 were rejected by the Examiner under 35 U.S.C. § 103(a) as being obvious over Fischer in view of Fox for the reasons set forth on pages 7-9 of the Office Action.

Applicant has submitted herewith a Statement Concerning Common Ownership, which clearly shows that the present application and Fischer, at the time of the invention of the present application was made, were both owned by, or subject to an obligation of assignment to, EpiCept Corporation. Therefore this rejection is moot and should be withdrawn. 35 U.S.C. § 103(c), MPEP § 706.02(I)(1)&(2).

Claims 2, 12-16 and 23 were rejected by the Examiner under 35 U.S.C. § 103(a) as being obvious over Cleary in view of Fox; claim 2 was also rejected as being obvious over Cooke in view of Fox; and claims 22 and 24-27 were rejected as being obvious over Cooke. Applicants respectfully traverses these rejections.

Cleary discloses a pharmaceutical composition for topical administration of a local anesthetic agent. Cleary discloses that the composition comprises a therapeutically effective amount of a local anesthetic agent and a nonliposomal carrier comprised of a monohydric alcohol, a penetration enhancer, and polymer, which may be a hydrophilic polymer, a hydrophobic polymer or a combination thereof (abstract).

However, Cleary does not disclose or suggest a sterile patch comprising a breathable backing coated with a polyvinylpyrrolidone-based hydrogel that comprises a local anesthetic, a poly(ethylene glycol) and an acrylic polymer, as presently claimed. Neither does Cleary disclose or suggest a package containing, or a method of using, such a patch, as presently claimed. Although Cleary discloses that the polymer in the composition may be polyvinyl pyrrolidone (page 6, paragraphs 0070 & 0071), that the composition may be in the form of a hydrogel (page 6, paragraphs 0067-0071), and that the composition may be cast or extruded onto a breathable backing layer (pages 8 and 9, paragraphs 0088-0092), there is no disclosure or suggestion in Cleary of a polyvinylpyrrolidone-based hydrogel that comprises a

local anesthetic, a poly(ethylene glycol) and an acrylic polymer, as presently claimed. In fact, Cleary does not disclose or suggest any composition that comprises the presently claimed compositions.

Cleary's compositions not only require a pharmaceutically acceptable, nonliposomal carrier, but also require that the carrier comprises a monohydric alcohol, a penetration enhancer and a polymer. In fact, the required presence of a monohydric alcohol, a penetration enhancer and a polymer in the nonliposomal carrier is a primary object and alleged key finding of Cleary (pages 1 and 2, paragraph 0012, pages 5 and 6, paragraphs 0060, 0061, 0065 and 0067). In this regard, Applicant respectfully submits that Cleary actually *teaches away* from the presently claimed invention, which recites that the polyvinylpyrrolidone-based hydrogel comprises a anesthetic, a poly(ethylene glycol) and an acrylic polymer, by emphasizing that the carrier be nonliposomal and comprise a monohydric alcohol and a penetration enhancer, in addition to the polymer.

Cooke discloses a non-occlusive adhesive skin patch that includes a porous backing and a therapeutic formulation that includes a medicament useful for relieving topical discomfort and a pressure sensitive adhesive (abstract and col. 1, lines 49-55). Cooke discloses that the pressure sensitive adhesive can include an adhesive, a polymer and a humectant, and optionally be a gel (col. 6, lines 39-41). Regarding the polymer component, Cooke discloses a long list of "suitable" polymers that include polyvinyl pyrrolidone, but states that the preferred polymer is karaya (col. 6, line 63 to col. 7, line 12).

However, Cooke does not disclose or suggest a polyvinylpyrrolidone-based hydrogel comprising a anesthetic, a poly(ethylene glycol) and an acrylic polymer, as presently recited. In other words, even though the terms "polyvinyl pyrrolidone," "hydrogel," and "anesthetic" all appear individually in Cooke, there is no suggestion in Cooke that the therapeutic formulation disclosed therein could be a polyvinylpyrrolidone-based hydrogel comprises a anesthetic, a poly(ethylene glycol) and an acrylic polymer, as presently recited. In fact, Cooke too *teaches away* from the presently claimed invention by emphasizing that, in addition to the active agent, the pressure sensitive adhesive includes an adhesive, a polymer and a humectant, as compared to the presently claimed polyvinylpyrrolidone-based hydrogel.

Fox could not cure the deficiencies of Cleary and Cooke. Fox discloses a non-stringy hydrophilic gel comprising an aqueous mixture of a radiation crosslinkable water-soluble polymer and an amount of at least one humectant effective to extend the in-use

moisture retaining characteristics of the gel (abstract and col. 2, lines 60-65). Fox discloses that PVP can be used as the water-soluble crosslinkable polymer (col. 6, lines 35-61) and that active ingredients such as lidocaine can be included into the gel (col. 20, lines 3-12).

However, Fox does not disclose or suggest a PVP-based hydrogel comprising an anesthetic, a poly(ethylene glycol) and an acrylic polymer, as presently recited. In other words, there is no suggestion in Fox that the non-stringy hydrophilic gel disclosed therein could be a polyvinylpyrrolidone-based hydrogel comprises a anesthetic, a poly(ethylene glycol) and an acrylic polymer, as presently recited. In fact, Fox also *teaches away* from the presently claimed invention, which does not include a humectant as an essential component, by emphasizing the alleged “surprising discovery” regarding the importance of a humectant to the hydrogel (col. 3, lines 18-46 and col. 6, lines 6-13).

As illustrated by case law and the Manual of Patent Examining Procedure (February, 2003, “*MPEP*”), four basic considerations must be made when applying obviousness rejections: (A) the claimed invention must be considered as a whole; (B) the references must be considered as a whole and must suggest the desirability and thus obviousness of making the combination; (C) the references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention; and (D) there must be a reasonable expectation of success. *Hodosh v. Block Drug Co., Inc.*, 786 F.2d 1136, 1143 (Fed. Cir. 1986); *MPEP* § 2141. Applicant respectfully submits that these standards have not been met in the present case.

First, the Examiner should re-consider the claimed invention as a whole in view of the current amendment. For example, the pending claims now all recite the feature that the polyvinylpyrrolidone-based hydrogel comprises a anesthetic, a poly(ethylene glycol) and an acrylic polymer. The amended claims further recite specific amounts of the polyvinylpyrrolidone and local anesthetic, specific PEGs and acrylic polymers, and specific ways that the patch is applied. Cleary, Cooke and Fox, whether alone or in combination, do not disclose or suggest the amended claims.

Second, while the Examiner correctly identifies individual features disclosed in the references, the Examiner has failed to consider the cited references as a whole. For example, as discussed herein, the Examiner fails to consider that Cleary’s compositions not only require a pharmaceutically acceptable, nonliposomal carrier, but also require that the carrier comprises a monohydric alcohol, a penetration enhancer and a polymer; that Cooke emphasizes that the pressure sensitive adhesive includes an adhesive, a polymer and a

humectant, in addition to the active agent; and that the alleged “surprising discovery” of Fox is the importance of a humectant to the hydrogel. Thus, when the art is properly considered as a whole, it is clear that Cleary and Cooke, whether alone or in combinations with Fox, do not suggest the desirability of a polyvinylpyrrolidone-based hydrogel comprising a anesthetic, a poly(ethylene glycol) and an acrylic polymer, as presently recited. Therefore, contrary to the Examiner’s contention, the references not only fail to render the pending claims obvious, but actually teach away from the claimed invention because each reference provides teaching that would take away any motivation that one of ordinary skill in the art might have to achieve the present invention.

Third, the Examiner’s rejection of the claims could only be based on impermissible hindsight. As the Examiner is aware, the requirement, in 35 U.S.C. § 103(a), “at the time the invention was made” is to avoid impermissible hindsight. *MPEP* § 2141.01. Thus, an Examiner “must step backward in time and into the shoes worn by the hypothetical ‘person of ordinary skill in the art’ when the invention was unknown and just before it was made.” *MPEP* §2142. This is important, as “impermissible hindsight must be avoided and the legal conclusion must be reached on the basis of the facts gleaned from the prior art.” *Id.* Consequently, when determining whether or not a claimed invention is obvious, one must cast his “mind back to the time of invention, to consider the thinking of one of ordinary skill in the art, guided only by the prior art references and the then-accepted wisdom in the field.” *In re Dembiczak*, 175 F.3d 994, 999 (Fed. Cir. 1999).

Based on the above principles, Applicant respectfully submits that the Examiner’s rejection of the claims in view of the references is based on the use of impermissible hindsight, wherein the claimed invention is used as a blueprint for the selection and combination of prior art. This is particularly clear when one considers that not only the references fail to disclose or suggest every element of the presently claimed invention, but each reference actually contains teachings that would discourage and teach away from the claimed invention.

Fourth, Applicant respectfully submits that one of ordinary skill in the art, based on the disclosure in the references, would not have had a reasonable expectation of success in achieving the presently claimed invention even if he were to combine the references. In this regard, it is important to recognize the various and different disclosures reported in the references and the inherent unpredictability of pharmaceutical compositions and medical treatments. As discussed herein, Cleary emphasizes the importance of a

nonliposomal carrier that includes a monohydric alcohol, a penetration enhancer and a polymer. Cooke emphasizes that the pressure sensitive adhesive includes an adhesive, a polymer and a humectant, in addition to the active agent, while Fox is focused on the importance of a humectant to the hydrogel. As such, one of ordinary skill in the art, reading these references, would not have had a reasonable expectation of success in achieving any polymer/adhesive/gel based topical formulation, not to mention the specific patch, patch package and method currently claimed. *See, Life Technologies, Inc. v. Clontech Laboratories, Inc.*, 224 F.3d 1320 (Fed. Cir. 2000) ("that the inventors were ultimately successful is irrelevant to whether one of ordinary skill in the art, at the time the invention was made, would have reasonably expected success").

For the above reasons, Applicant respectfully submits that a *prima facie* case of obviousness, as required by law, has not been made in this case and that Cleary, Cooke and Fox, whether alone or in combinations, do not render any of the pending claims obvious. It is therefore respectfully requested that the rejection of the claims under §103 should be reconsidered and withdrawn.

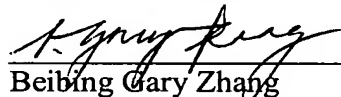
#### Conclusion

Applicant respectfully submits that all claim rejections have been overcome and that all pending claims are now in condition for allowance, early notice of which is earnestly solicited.

No fee is believed to be due for the submission of this response, except the fee for the Petition for Extension of Time Submitted herein. Should any additional fee be required, however, please charge such fee to Jones Day Deposit Account No. 5030313.

Respectfully submitted,

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